CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

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Group of Experts on Protected Areas and Ecological Networks

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SELECTING A SUBSET OF SPECIES FROM RESOLUTION NO.6 (1998) AND HABITATS FROM RESOLUTION NO.4 (1996) FOR THE PERIOD 2013-2018

Implementation of Recommendation No. 16 (1986) and Resolution No. 5 (1998) of the Standing Committee to the Bern Convention on the Emerald Network of Areas of Special Conservation Interest (ASCI)

REPORTING FORM

With reference to Recommendation No. 157 (2012) and Resolution No. 8 (2012)

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The following subset of species and habitats for the reporting under Resolution No. 8 (2012) of the Bern Convention is proposed:

Group	Code	Species/habitat name
Birds	A122	Crex crex
Birds	A215	Bubo bubo
Birds	A021	Botaurus stellaris
Birds	A060	Aythya nyroca
Birds	A091	Aquila chrysaetos
Birds	A151	Philomachus pugnax
Birds	A151	Philomachus pygnax
Birds	A239	Dendrocopos leucotos
Birds	A030	Ciconia nigra
Birds	A127	Grus grus
Birds	A196	Chlidonias hybridus
Birds	A231	Coracias garrulus
Birds	A339	Lanius minor
Amphibians	1193	Bombina variegata
Fish	1134	Rhodeus sericeus amarus
Fish	1146	Sabanejewia aurata
Fish	1163	Cottus gobio
Fish	1096	Lampetra planeri
Invertebrates	1014	Vertigo angustior
Invertebrates	1060	Lycaena dispar
Invertebrates	1042	Leucorrhinia pectoralis
Invertebrates	1083	Lucanus cervus
Invertebrates	1084	Osmoderma eremita
Invertebrates	1032	Unio crassus
Mammals	1352	Canis lupus
Mammals	1355	Lutra lutra
Mammals	1308	Barbastella barbastellus
Mammals	1354	Ursus arctos
Reptiles	1220	Emys orbicularis
Plants	1393	Drepanocladus vernicosus
Plants	1428	Marsilea quadrifolia
Plants	1902	Cypripedium calceolus
Plants	1528	Saxifraga hirculus
Plants	1617	Angelica palustris
Plants	2098	Paeonia tenuifolia
Plants	1758	Ligularia sibirica
Plants	1939	Agrimonia pilosa
Plants	2292	Fritillaria montana
Habitat	B1.6	Coastal dune scrub
Habitat	C1.25	Charophyte submerged carpets in mesotrophic waterbodies
Habitat	D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks
Habitat	E1.3	Mediterranean xeric grassland
Habitat	F3.241	Central European subcontinental thickets
Habitat	G1.6	Fagus woodland

Habitat	G1.A4	Ravine and slope woodland
Habitat	G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae
Habitat	H1	Terrestrial underground caves, cave systems, passages and waterbodies

RATIONALE BEHIND THE SUBSET OF SPECIES AND HABITATS PROPOSED:

The Group of Experts of Protected Areas and Ecological Networks, agreed at its 2015 meeting on the reduction of the number of species and habitats to report on by creating a subset using the following principles:

"The format requires that countries report on a common selection of species and habitats, based on a set of criteria such as: (1) presence of the species and habitats in as many countries concerned as possible; (2) Red Listed species; (3) species/habitats with declared unfavourable conservation status in the EU Natura 2000, etc....). However, all species groups and main habitat types should be represented in the selection. Data availability should not be used as an argument for the selection of the species and habitats, as the reporting process should also trigger initiatives for the collection of new data. In addition, a few species and habitats with limited distribution should be added to the final selection, equally distributed over the countries concerned. "

The criteria n° 1 requests a high level of information on presence of species and habitats within countries and Biogeographical regions. During the biogeographical seminars, data are extracted from the databases submitted by the countries for their Emerald Network sites and the sufficiency evaluations form the "Reference Lists of species and habitats".

In order to analyse all the information available from the seminars (see table 1), the reference lists are merged to create a consolidated version. The bullet points below highlight the main aspects of the data merging and analyses. The resulting tables containing the proposals for a selection of species and habitats can be found in the accompanying Excel file.

Table 1: Overviews of Emerald biogeographical seminars:

Biogeographical seminars					
Number	Year	Country	City	Subject	Biogeographical regions
1	2011	ME	Bar	all	MED, ALP, CON, PAN
2	2012	CH	Basel	all	ALP, CON
3	2013	NO	Trondheim	all	ARC, ALP, ATL, BOR
4	2015	GE	Tbilisi	all (except Birds)	STE, ALP-Cau, ANA
5	2015	RU	Petrozavodsk	all (except Birds)	ARC, BOR, ALP-Ura
6	2015	BY	Minsk	Birds	n/a
7	2016	MD	Chisinau	all (except Birds)	CON, ALP-Car, PAN
8	2016	NO	Trondheim	all	ARC, ALP, ATL, BOR
9	2016	UA	Kiev	all (except Birds)	STE, ALP-Cau, BLS
10	2016	GE	Tbilisi	Birds	n/a

- The "Reference Lists" of the biogeographical seminars identify all species and habitats present in countries and biogeographical regions, as agreed during the seminars.

- Emerald data are available from 14 countries. For Iceland no data are available yet.

- The 10 seminars together, cover the full area for all 14 countries and all biogeographical regions concerned.

- As a consequence, all species groups and habitats could be analysed for all countries and all biogeographical regions.

- The number of Biogeographical regions per country is as follows:

Number of biogeographical regions per country

Country	Biogeographical regions
AL	2
AM	2
AZ	3
BA	3
BY	2
CH	2
GE	3
MD	2
ME	2
MK	2
NO	5
RS	3
RU	7
UA	4

- The reporting format also refers to Marine biogeographical regions; until now, no such regions were defined in the Emerald Network context.

- For the biogeographical process, it was decided to handle the different sub-zones for the Alpine as separate biogeographical regions; for the purpose of reporting it is suggested to handle the subzones as one region. (Carpathians, Urals and Caucasus)

- During the first seminar in the West-Balkan, a number of species and habitats were also not discussed. Nevertheless, the species and habitats marked with "ND" are taken into account for the analysis.

- Birds are evaluated at country level. No need to take into account the biogeographical regions aspect.

- For all other species and habitats, the draft reporting format requests countries to report per biogeographical region. As a consequence, the reporting workload also depends on the number of biogeographical regions occurring in a country and the number of regions in which the species and habitats occur.

- Species and Habitats indicated with the "SR REF" evaluation are also taken into account in the statistics.

- In spite of using high data QA/QC standards, the merging of data from different seminars may still contain small problems that hamper smooth analysis. E.g. in Resolution No. 6(1998) lists there are a few genus as "spp." and during the first biogeographical seminars, the evaluation was done at the level of the genus. Today, all evaluations and the reporting exercises are done at the level of individual species. In most cases, those "spp." listed species could be changed to the individual species concerned. The few remaining cases were left out of the analysis at species level.

- The "Ad hoc Restricted Group of Experts on Reporting on the Emerald Network of Areas of Special Conservation Interest" at its 2016 meeting discussed the number of species and habitats to report on. The decision was taken to select between 30-50 species and habitats in total, leading to a total number for each country of between 30 and 50.

- In total, Resolution No. 6(1998) lists 207 Birds, 908 other species and Resolution No. 4(1996) lists 212 habitats. For plants the total is 684, but the 121 endemic macaronesian species are not taken into account.

- The total number of species and habitats considered as present within the 14 countries concerned is indicated in the table below, together with the total number of biogeographical evaluations, and thus the potential total number of reporting units.

Taxonomic Group	Res No. 6(1998)	14 countries	# biogeos
Amphibians	29	9	89
Fish	84	51	396
Invertebrates	136	75	738
Mammals	65	45	546
Reptiles	31	13	126
Plants (excl. 121 species for MAC)	563	140	581
Subtotal	**908**	**333**	**2476**
Birds	207	173	173
Habitats	212	169	1755
Total	**1327**	**675**	**4404**

- All records in the consolidated version of the Reference List are sorted by the number of countries where the species is present. In this way, species belonging to those occurring in the highest number of countries can be easily extracted. The Excel table "Species for reporting – final" lists for each group the species/habitats sorted according the highest occurrences. The table below is an example for Plants. The green background represents the selection made, totalling 20 plant species in the selection list:

Number of species	Number of countries
1	12
1	11
3	9
2	8
2	7
3	6
8	5
3	4
16	3
38	2
63	1

- It should be stressed that the number of reporting units still varies significantly amongst countries according to the number of biogeographical regions involved.

- This preliminary selection served as a pick-list to produce the final list of species and habitats.

- To be able to balance the number of species and habitats selected for each group, the percentage according to the total number present in the 14 countries concerned is calculated. The table below indicates the results:

Group	Number of features in reference list	%	Calculated number to reach 30	Calculated number to reach 50	30 rounded	50 rounded

	for 14 countries		features	features		
Amphibians	9	1,3	0,4	0,7	**1**	**1**
Birds	169	25,2	7,6	12,6	**8**	**12**
Fish	51	7,6	2,3	3,8	**2**	**4**
Invertebrates	75	11,2	3,4	5,6	**3**	**6**
Mammals	45	6,7	2,0	3,4	**2**	**4**
Plants	140	20,9	6,3	10,4	**6**	**10**
Reptiles	13	1,9	0,6	1,0	**1**	**1**
Subtotal	**502**					
Habitats	169	25,2	7,6	12,6	**7**	**12**
Total	**671**		30,0	50,0	**30**	**50**

- For example, for plants, to reach a sample of between 30 and 50 species, between 6 and 10 plant species should be selected.

- The Excel table "Reporting workload calculation", indicates for each group the selected species and habitats and their presence within the countries and biogeographical regions. The aim is to include as many species and habitats as possible from the different sub-groups according to theirdistribution over the biogeographical regions as well as their conservation status in the EU etc…

- For Habitats, the aim is also to select habitats with a one to one relationship with annex I habitats types of the Habitats Directive, with a few exceptions to ensure sufficient representativity between the different sub-groups.

- It is also decided NOT to take into account for this reporting period any of the taxonomical issues for some of the species selected. Reporting will be done at the level of the scientific name as referred toin Resolution No.6(1998).

- The Ad hoc Group of Experts on Reporting on the Emerald Network of Areas of Special Conservation Interest also indicated the possibility for countries to add a variable number of species and habitats to the agreed common list (e.g. 5<>10) to be able to reach an equivalent workload for each of the countries. The table below indicates for example that Norway and Switzerland might add a few species more than others to reach a more or less comparable sample.

The table below summarizes the number of species and habitats in the proposed selection:

Group	AL	AM	AZ	BA	BY	CH	GE	MD	ME	MK	NO	RS	RU	UA
Birds	12	11	12	12	12	7	12	11	12	11	6	12	12	12
Species	15	14	15	18	20	15	16	17	21	19	12	21	23	25
Habitats	9	6	8	7	3	5	8	5	9	7	4	8	8	9
Total	**36**	**31**	**35**	**37**	**35**	**27**	**36**	**33**	**42**	**37**	**22**	**41**	**43**	**46**

LIST OF BIRD SPECIES SELECTED:

Code	Species name	AL	AM	AZ	BA	BY	CH	GE	MD	ME	MK	NO	RS	RU	UA
A122	Crex crex	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A215	Bubo bubo	X	X	X	X	X	X	X	SR	X	X	X	X	X	X
A021	Botaurus stellaris	X	X	SR	X	X	X	X	X	X	X		X	X	X
A060	Aythya nyroca	X	X	X	X	X	X	X	X	X	X		X	X	X
A091	Aquila chrysaetos	X	X	X	X	X	X	X		X	X	X	X	X	X
A151	Philomachus pugnax	X	X	X	SR	X	X		X	X	X	X	X	X	X

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
A151	Philomachus pygnax						X								
A239	Dendrocopos leucotos	ND		SR	ND	X	X	X	SR	ND	ND	X	ND	X	X
A030	Ciconia nigra	X	X	X	X	X		X	X	X	X		X	X	X
A127	Grus grus	SR	X	X	X	X		X	X	X		X	X	X	X
A196	Chlidonias hybridus	X	X	X	X	X		SR	X	X	X		X	X	X
A231	Coracias garrulus	X	X	X	X	X		X	X	X	X		X	X	X
A339	Lanius minor	ND	X	X	ND	X		X	X	ND	ND		ND	X	X
	Total number of reporting units	**12**	**11**	**12**	**12**	**12**	**7**	**12**	**11**	**12**	**11**	**6**	**12**	**12**	**12**

(ND = Not Discussed, SR = Scientific Reserve, X = present in the biogeographical region)

LIST OF SELECTED SPECIES (OTHER THAN BIRDS)

The detail of presence in each of the biogeographical regions within each country can be found in the excel table.

Taxonomic group	Code	Species name
A	1193	Bombina variegata
F	1134	Rhodeus sericeus amarus
F	1146	Sabanejewia aurata
F	1163	Cottus gobio
F	1096	Lampetra planeri
I	1014	Vertigo angustior
I	1060	Lycaena dispar
I	1042	Leucorrhinia pectoralis
I	1083	Lucanus cervus
I	1084	Osmoderma eremita
I	1032	Unio crassus
M	1352	Canis lupus
M	1355	Lutra lutra
M	1308	Barbastella barbastellus
M	1354	Ursus arctos
R	1220	Emys orbicularis
P	1393	Drepanocladus vernicosus
P	1428	Marsilea quadrifolia
P	1902	Cypripedium calceolus
P	1528	Saxifraga hirculus
P	1617	Angelica palustris
P	2098	Paeonia tenuifolia
P	1758	Ligularia sibirica
P	1939	Agrimonia pilosa
P	2292	Fritillaria montana

LIST OF SELECTED HABITATS

The detail of presence in each of the biogeographical regions within each country can be found in the excel table.

Habitat code	Habitat title
B1.6	Coastal dune scrub
C1.25	Charophyte submerged carpets in mesotrophic waterbodies
D4.1	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks
E1.3	Mediterranean xeric grassland
F3.241	Central European subcontinental thickets

G1.6	Fagus woodland
G1.A4	Ravine and slope woodland
G3.9	Coniferous woodland dominated by Cupressaceae or Taxaceae
H1	Terrestrial underground caves, cave systems, passages and waterbodies